

MEMO FROM
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STANFORD UNIVERSITY
STANFORD, CALIFORNIA

TO: Fred Singer

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RC
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Dear Fred:

AUG 21 1969

If it were inevitable that a year-long manned capability were developed and charged to other needs, I could see some sense to your argument. I am afraid it will go the other way, and planetary exploration will be the main justification for very large investments in nuclear propulsion and in a long-lived MOL. So when we already have the capability I will help you think of uses for it. (Darwin did, I believe, parasitize the R.N.)

I realize the extra burden of the ~~xxxx~~ signal delay, but I think you understate the opportunities for manned control of the instrumented flyby- from the ground. I also think the technological spillover from this kind of instrumentation is very much larger than from life support systems. (But one could analyze that further.) As to local manned analysis of data, we are ~~xxxxxx~~ surely many \$B away from the kind of system you would ~~xxxx~~ send your best scientists on.

And once he's seen the Red Planet, how will you keep him off of it?

How would you trade off a manned flyby against an instrumented sample-retrieval: and be sure to return it to the moon, not earth, if there is any question about quarantine.

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